

ACADEMIC GUIDELINE BOOK 2023/2024



**PHARMACY STUDY PROGRAM
FACULTY OF HEALTH SCIENCES
UIN SYARIF HIDAYATULLAH JAKARTA**





**KEPUTUSAN DEKAN FAKULTAS ILMU KESEHATAN
UIN SYARIF HIDAYATULLAH JAKARTA
NOMOR : 106 TAHUN 2023**

TENTANG

**ACADEMIC GUIDELINE BOOK 2023/2024
PROGRAM STUDI FARMASI
FAKULTAS ILMU KESEHATAN
UIN SYARIF HIDAYATULLAH JAKARTA**

- Menimbang :**
- bahwa dalam rangka mengembangkan dan meningkatkan kualitas mahasiswa Program Studi Farmasi Fakultas Ilmu Kesehatan UIN Syarif Hidayatullah Jakarta Tahun Akademik 2023/2024 dalam bidang akademik dipandang perlu menetapkan Academic Guideline Book 2023/2024 Program Studi Farmasi;
 - Bahwa data-data yang tercantum dalam lampiran ini dipandang memenuhi syarat menjadi Academic Guideline Book 2023/2024 Program Studi Farmasi Fakultas Ilmu Kesehatan UIN Syarif Hidayatullah Jakarta;
 - bahwa berdasarkan huruf a perlu ditetapkan Keputusan Dekan.
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 - Undang – Undang Nomor 12 Tahun 2012 tentang Pendidikan Tinggi;
 - Peraturan Pemerintah Nomor 37 Tahun 2009 Tentang Dosen;
 - Peraturan Pemerintah Nomor 4 Tahun 2014 tentang Penyelenggaraan Pendidikan Tinggi dan Pengelolaan Perguruan Tinggi;
 - Peraturan Menteri Agama Nomor 6 Tahun 2013 tentang Organisasi dan Tata Kerja UIN Syarif Hidayatullah Jakarta;
 - Keputusan Menteri Agama Nomor 17 tahun 2014 tentang Statuta UIN Syarif Hidayatullah Jakarta;
 - Keputusan Menteri Keuangan Nomor: 42/KMK.05/2008 tentang Penetapan UIN Syarif Hidayatullah Jakarta pada Departemen Agama RI sebagai Instansi Pemerintah yang menerapkan pengelolaan keuangan Badan Layanan Umum;
 - Peraturan Menteri Pendidikan dan Kebudayaan Nomor 3 Tahun 2020 Tentang Standar Nasional Pendidikan Tinggi.

MEMUTUSKAN

- Menetapkan :** KEPUTUSAN DEKAN FAKULTAS ILMU KESEHATAN UIN SYARIF HIDAYATULLAH JAKARTA TENTANG ACADEMIC GUIDELINE BOOK 2023/2024 PROGRAM STUDI FARMASI FAKULTAS ILMU KESEHATAN UIN SYARIF HIDAYATULLAH JAKARTA.
- Pertama :** Menetapkan yang tercantum dalam surat keputusan ini sebagai Academic Guideline Book 2023/2024 Program Studi Farmasi Fakultas Ilmu Kesehatan UIN Syarif Hidayatullah Jakarta.
- Kedua :** Keputusan ini berlaku sejak tanggal ditetapkan, dengan ketentuan apabila terdapat kekeliruan dalam Keputusan ini akan diperbaiki sebagaimana mestinya.

DITETAPKAN DI : JAKARTA
PADA TANGGAL : 05 Oktober 2023



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PREFACE

Praise and gratitude, we offer to the Almighty for His grace and favor, so that we can complete the Academic Guidelines Book for the Pharmacy Study Program at UIN Syarif Hidayatullah Jakarta for the Academic Year 2022/2023. This book was prepared to guide the academic community in carrying out academic and student activities in the Pharmacy Study Program at UIN Syarif Hidayatullah Jakarta. This guideline book contains information about the Pharmacy Study Program at UIN Syarif Hidayatullah Jakarta, beginning with an introduction that includes the history of its establishment, vision, mission, educational objectives, graduate competencies, educational implementation, facilities and infrastructure, and student affairs. Hopefully, this guideline book can enhance the education management system and serve as a resource for developing educational programs in the Pharmacy Study Program at UIN Syarif Hidayatullah Jakarta.

Thank you.

Head Of Pharmacy Study Program



apt. Ismiarni Komala., M.Sc., PhD

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I. HISTORY, VISION, MISSION, AND OBJECTIVES

1.1 Brief History of the Study Program

In an effort to meet higher education needs in line with societal demands, the State Islamic University (UIN) Syarif Hidayatullah Jakarta established a new Faculty, the Faculty of Medicine and Health Sciences (FKIK) University (UIN) Syarif Hidayatullah Jakarta established a new Faculty, the Faculty of Medicine and Health Sciences (FKIK). The establishment of the FKIK initially aimed at addressing the challenges of realizing the "Healthy Indonesia 2010" concept proposed by the government, which required more nursing professionals (nurses), pharmacists, and public health workers. This aligns with UIN's vision of becoming a leading higher education institution by integrating knowledge, Islam, and Indonesian values. To expedite this integration, a meeting of the UIN Syarif Hidayatullah Jakarta Senate on December 30, 2002, recognized the importance of launching new programs in the field of health. This forum recommends establishing the Faculty of Medicine and Health Sciences (FKIK). Based on this Senate decision, the preparation of proposals for four study programs under the FKIK began: Public Health, Pharmacy, Nursing, and Medical Education. The team responsible for composing the proposal for the establishment of the Faculty of Medicine, Nursing, and Health Sciences (FKIK) led by Prof. Dr. (hc), Dr. M.K. Tadjudin, Sp.And. from the Faculty of Medicine, University of Indonesia, who also serves as the overseeing faculty. The initiators for the establishment of FKIK at UIN Syarif Hidayatullah Jakarta are Prof. Dr. Azyumardi Azra, MA., Prof. Dr. Suwito, MA., Prof. Dr. Abuddin Nata, MA., Drs. H. Achmad Gholib, MA., Drs. H. Abdul Shomad, and others. The team responsible for composing the proposal for the Public Health Study Program was a team from the Faculty of Public Health, University of Indonesia, led by Prof. Dr. Does Sampoerno. The team responsible for composing the proposal for the Pharmacy Study Program is led by Drs. M. Yanis Musdja, Apt., MSc. The team responsible for writing the Nursing Science Study Program proposal was led by Mrs. Tien Gartinah, MN.

The Pharmacy study program commenced in the academic year 2004/2005, with the issuance of a permit for the implementation of the pharmacy study program by the Directorate General of Higher Education, Ministry of National Education of the Republic of Indonesia (No. 1387/D2.2/2004, dated August 6, 2004, and the Decree of the Director General of the Islamic Institution, Ministry of Religious Affairs No. Dj.II/274/2004, dated August 8, 2004. In 2018, the FKIK was divided into the Faculty of Health Sciences and the Faculty of Medicine, based on the Regulation of the Minister of Religious Affairs of the Republic of Indonesia No. 1 of 2018, dated February 23, 2018, regarding the Second Amendment to the Regulation of the Minister of Religious Affairs No. 6 of 2013 concerning the Organization and Work Procedures of the State Islamic University Syarif Hidayatullah Jakarta, the Rector Decree No. 129 of 2003 concerning the Organization and Work Procedures, Statute, and Job Descriptions of UIN Syarif

Hidayatullah Jakarta, and the Rector Decree No. 141a of 2018, dated February 26, 2018, regarding the closure of the Faculty of Medicine and Health Sciences and the establishment of the Faculty of Health Sciences and the Faculty of Medicine at UIN Syarif Hidayatullah Jakarta. The distinctive features of the Pharmacy Program at UIN Syarif Hidayatullah Jakarta Graduates of the Pharmacy program possess Islamic integrity in performing pharmaceutical work. They are capable of applying halal aspects in the field of pharmacy.

1.2 Vision, Mission and Objectives Study Program

Vision

To become a distinguished provider of pharmaceutical undergraduate education, the integration of pharmaceutical science development with Islamic values and Indonesian cultural wisdom will enable competitiveness at both national and international levels by 2025.

Mission

1. Deliver-quality pharmaceutical undergraduate education is based on Islamic values and Indonesian cultural knowledge.
2. Conduct research in the field of pharmacy utilizing Indonesian natural resources that meet the halal criteria.
3. Engaging in community services based on research outcomes in the field of pharmacy.
4. Establish productive and sustainable Tri dharma cooperation with national and international pharmaceutical-related institutions.
5. Provide an opportunity for graduates of religious schools (madrasah/pesantren) to obtain high-quality pharmaceutical

Objectives

1. Produce pharmacy graduates with Islamic integrity in performing pharmaceutical work, capable of competing nationally and internationally, and proficient in applying halal aspects in the pharmaceutical field.
2. Develop a well-governed education system encompassing transparent, accountable, accurate, and efficient planning, implementation, evaluation, and sustainable development.
3. Generate research outcomes in the field of pharmacy and halal product development applicable to the community.
4. Possess the ability to actively contribute to providing solutions to pharmaceutical issues and halal aspects for the community.
5. Foster good cooperation with various stakeholders in education, research, and community engagement

II. EDUCATION MANAGEMENT

2.1 Graduate Profile Study Program

The Pharmacy Study Program, Faculty of Health Sciences, UIN Syarif Hidayatullah Jakarta, aims to produce globally reputable pharmacist graduates who excel in integrating Islamic knowledge, Indonesian values, and scientific competencies in the pharmaceutical profession. This objective is detailed through the following program educational objectives (PEOs) as below:

PEOs	Indicator
PEO-1: Producing pharmacy graduates who are faithful and pious, continuously learn and develop competencies throughout their lives.	<ul style="list-style-type: none"> - 100% of graduates practice Islamic values in carrying out pharmaceutical work. - 5% of graduates engage in self-development through formal education, training, and courses.
PEO-2: Producing competent Pharmacy graduates who actively contribute to the pharmaceutical job sector.	<ul style="list-style-type: none"> - 10% of graduates work in accordance with pharmaceutical expertise. - 2% Achieving accomplishments in their job track record.
PEO-3: Producing pharmacy graduates with strong leadership skills who are capable of making swift decisions.	<ul style="list-style-type: none"> - 2% of graduates Hold leadership positions in their workplace. - 2% Involvement in organizations.
PEO-4: Producing Pharmacy graduates with creativity and innovation in pharmaceutical work, as well as being responsive to opportunities and capable of utilizing them for professional enhancement.	<ul style="list-style-type: none"> - 2% of graduates become entrepreneurs in the pharmaceutical field. - 5% of graduates actively participate in professional development within their community.
PEO-5: Producing Pharmacy graduates who are caring and courteous in their service, capable of professional communication, and able to impart their experiences and competencies to the next generation.	<ul style="list-style-type: none"> - 2% of graduates become preceptors. - 2% of graduates become speakers in various activities. - 2% of graduates are involved in community social activities.

PEO-6 Producing Pharmacy graduates who can contribute to the assurance process of halal pharmaceuticals, food, and cosmetics.	- 2% of graduates work in institutions related to halal pharmaceuticals, food, and cosmetics assurance.
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2.2 Learning Outcomes

Learning Outcome	Description
Attitude Aspect	
LO-1	Graduates are capable of demonstrating a devout attitude towards the Almighty God and upholding human values when performing pharmaceutical work.
LO-2	Graduates are able to demonstrate a sense of nationalism by collaborating and contributing to national and state life.
LO-3	Graduates are capable of demonstrating obedience to law, discipline, responsibility, and internalizing values, norms, and academic ethics in societal and national life.
General skills Aspect	
LO-4	Graduates can work independently and systematically, make documents, evaluate them to make informed decisions and generate solutions and ideas in the pharmaceutical field.
LO-5	Graduates are capable of designing, conducting, and writing research reports for the development of pharmaceutical science.
LO-6	Graduates are able to collaborate and build networks to develop entrepreneurial ideas, as well as career and self-development in the pharmaceutical field, and they can communicate effectively in Indonesian, English, and Arabic.
LO-7	Graduates are able to read the Quran and practice religious rituals.
Specific skills Aspect	
LO-8	Graduates can identify and solve drug-related problems using evidence-based approaches in the design, preparation, distribution, management, and/or service of pharmaceutical preparations to optimize therapeutic success.
LO-9	Graduates are able to search, critically analyze, and organize information about pharmaceutical preparations, and effectively communicate with individuals and communities.

LO10	Graduates are capable of performing pharmaceutical work under the supervision of a pharmacist responsibly, according to applicable laws and ethical codes.
LO-11	Graduates are equipped to apply comprehensive Islamic medical practices for health preservation, treatment, and well-being, and can also identify and assess the halal status of products like medicines, food, and cosmetics.
LO12	Graduates are able to collaborate effectively with other healthcare professionals to enhance their healthcare services.
Knowledges Aspect	
LO-13	Graduates are able to master the theories, methods, and applications of pharmaceutical science (pharmaceutics, pharmaceutical chemistry, pharmacognosy, pharmacology).
LP-14	Graduates are able to grasp the concepts and applications of biomedical science (biology, human anatomy, microbiology, physiology, pathophysiology, biomedical ethics and biostatistics).
LO-15	Graduates are able to understand concepts in pharmacotherapy, pharmaceutical care, pharmacy practice, as well as principles of pharmaceutical calculations, pharmacoepidemiology, evidence-based medicine, and pharmacoconomics.
LO-16	Graduates are able to understand pharmacy management, socio-pharmacy, pharmacy law and ethics, communication techniques, and basic principles of occupational safety.
LO-17	Graduates are able to comprehend methods of Islamic treatment, governance of halal assurance systems, ways of identifying and analyzing the halal status of raw materials, processes, and pharmaceutical, food and cosmetic products.

2.3 Profile and Learning Outcomes Relationships

LO	Description	PEO					
		1	2	3	4	5	6
LO1	Graduates are capable of demonstrating a devout attitude towards the Almighty God and upholding human values when performing pharmaceutical work.	√					√
LO2	Graduates are able to demonstrate a sense of nationalism by collaborating and contributing to national and state life.			√			
LO3	Graduates are capable of demonstrating obedience to law, discipline, responsibility, and internalizing values, norms, and academic ethics in societal and national life.					√	
LO4	Graduates can work independently and systematically, make documents, evaluate them to make informed decisions and generate solutions and ideas in the pharmaceutical field.			√			
LO5	Graduates are capable of designing, conducting, and writing research reports for the development of pharmaceutical science.				√		

LO	Description	PEO					
		1	2	3	4	5	6
LO6	Graduates are able to collaborate and build networks to develop entrepreneurial ideas, as well as career and self-development in the pharmaceutical field, and they can communicate effectively in Indonesian, English, and Arabic.				√	√	
LO7	Graduates are able to read the Quran and practice religious rituals.	√					
LO8	Graduates can identify and solve drug-related problems using evidence-based approaches in the design, preparation, distribution, management, and/or service of pharmaceutical preparations to optimize therapeutic success.		√		√		
LO9	Graduates are able to search, critically analyze, and organize information about pharmaceutical preparations, and effectively communicate with individuals and communities.		√	√	√	√	
LO10	Graduates are capable of performing pharmaceutical work under the supervision of a pharmacist		√		√		

LO	Description	PEO					
		1	2	3	4	5	6
	responsibly, according to applicable laws and ethical codes.						
LO11	Graduates are equipped to apply comprehensive Islamic medical practices for health preservation, treatment, and well-being, and can also identify and assess the halal status of products like medicines, food, and cosmetics.	√					
LO12	Graduates are able to collaborate effectively with other healthcare professionals to enhance their healthcare services.						√
LO13	Graduates are able to master the theories, methods, and applications of pharmaceutical science (pharmaceutics, pharmaceutical chemistry, pharmacognosy, pharmacology).		√	√	√	√	
LO14	Graduates are able to grasp the concepts and applications of biomedical science (biology, human anatomy, microbiology, physiology, pathophysiology, biomedical ethics and biostatistics).		√	√	√	√	√

LO	Description	PEO					
		1	2	3	4	5	6
LO15	Graduates are able to understand concepts in pharmacotherapy, pharmaceutical care, pharmacy practice, as well as principles of pharmaceutical calculations, pharmacoepidemiology, evidence-based medicine, and pharmacoconomics.		√				
LO16	Graduates are able to understand pharmacy management, socio-pharmacy, pharmacy law and ethics, communication techniques, and basic principles of occupational safety.		√	√	√		
LO17	Graduates are able to comprehend methods of Islamic treatment, governance of halal assurance systems, ways of identifying and analyzing the halal status of raw materials, processes, and pharmaceutical, food and cosmetic products.		√	√	√	√	√

2.4 Learning Outcomes Courses Matrix

Courses	Learning Outcomes																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Semester 1																	
Pancasila and Civic Education		3															
Islamic Studies	3																
Qira'ah and Worship Practice	3						3										
Basic Science of Pharmacy	1											1	1	1			
Basic Science of Pharmacy Practice			1					1				1	1	1			
Biomedicine														3			
English					1	3											
Pharmaceutical Organic Chemistry												3					
Pharmaceutical Organic Chemistry Practice			1					1				1					
Semester 2																	
Indonesian Language		1			1	3											
Arabic Language	3					3											
Islam and Health Sciences	3										3						
Pharmaceutical Microbiology														3			
Pharmaceutical Microbiology Practice			1	1				2									
Pharmacognosy												3					
Pharmacognosy Practice			1					1									
Human Anatomy, Physiology and Pathophysiology	1													2			
Human Anatomy, Physiology and Pathophysiology practice			1											2			
Physical Pharmacy												3			2		
Physical Pharmacy Practice	1		1					1									

Courses	Learning Outcomes																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Semester 3																	
Phytochemistry 1													3				
Phytochemistry 1 Practice			1					1									
Pharmacology and Toxicology													3				
Pharmacology and Toxicology Practice			1					1									
Medicinal Chemistry													3				
Physico-chemical analysis													3				
Basic Pharmaceutics													3		2		
Basic Pharmaceutics Practice			1					1	1								
Analysis of Raw Material								1	1				3		2		
Analysis of Raw Material Practice			1					1	1				3		2		
Pharmaceutical Biotechnology													3	2			
Semester 4																	
Pharmacotherapy 1	1							3	3						3		
Analysis of Pharmaceutical Preparation													3				
Analysis of Pharmaceutical Preparation Practice			1					1									
Formulation and Technology of Solid Dosage Forms								3					3		2		
Formulation and Technology of Solid Dosage Forms Practice			1	1				3	3								
Phytochemistry 2								1					3				
Phytochemistry 2 Practice			1	1				1									
Pharmacokinetics								2					3		2		
Biopharmaceutics								2					3		2		
Biopharmaceutics and Pharmacokinetics Practice			1	1				3	3								
Halal Product Guarantee System	2																3

Courses	Learning Outcomes																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Semester 5																	
Pharmacotherapy 2	1							3	3						3		
Entrepreneur and Digital Pharmacy	1			1		3											
Research Methodology and Biostatistics					3												
Analysis of Drug, Food and Cosmetic Halal	1																3
Analysis of Drug, Food and Cosmetic Halal Practice	2			1				1									3
Formulation and Technology of Liquid and Semi-Solid Dosage Forms								3					3		3		
Formulation and Technology of Liquid and Semi-Solid Dosage Forms Practice			1	1				3		3							
Information Education and Communication									3							3	
National Health System		1	1													3	
Phytotherapy	1												3				
Semester 6																	
Pharmacotherapy 3	1							3	3						3		
Formulation and Technology of Sterile Dosage Forms								3					3		2		
Formulation and Technology of Sterile Dosage Forms Practice	1		1	1				3		3							
Pharmacy Industry								3					3			3	
Pharmaceutical Service			1			3			3	3					2		
Pharmaceutical Service practice			1	1		3			3	3							
Pharmacy Management								3		3							3
Interprofessional Education 1	1		1			3			3			3					3
Health Regulations and Laws			1								2						3
Method of Islamic Medicine	1											3					
Drug Stability								3					3				

Courses	Learning Outcomes																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Semester 7																	
Pharmacotherapy 4	1							3	3						3		
Pharmacotherapy Practice			1	1				3	3								
Research Proposal Seminar			1		3												
Interprofessional Education 2	1		1			3			3			3				3	
Compounding and Dispensing	1							3					3		2		
Compounding and Dispensing Practice			1	1				3		3							
Hospital Pharmacy practice			1	1		3		3	3	3		3					
Semester 8																	
Undergraduate Thesis			2	3	3			3									
Elective																	
Analysis of Biomedic and Forensic														v			
Radiopharmaceuticals													v				
Cosmetology													v				
Marine Natural Product													v				
Natural Product Technology													v				
Pharmacoeconomics and Pharmacovigilance			v						v							v	
Ethnopharmacy and Alternative Medicine													v				
Tissue Culture Technology														v			
Overdose and Poisoning Management															v		
Culture Cell Technology														v			
Pharmacoepidemiology			v						v						v	v	
Structure Elucidation													v				
Environmental Pharmacy													v				
Drug Design and Synthesis													v				

Courses	Learning Outcomes																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Drug Discovery													v				
Drug Delivery System								v					v				

Note: The numbers show how much each contributes to the Course Learning Outcomes (CLO): 3 = high, 2 = medium, 1 = low

2.5 Courses

The formulation of courses offered in the Bachelor of Pharmacy Study Program at the State Islamic University Syarif Hidayatullah Jakarta is based on the graduate profiles and expertise in each profile. Therefore, the following steps are taken:

1. Determining subjects based on learning outcomes.
2. Identifying the breadth and depth of subject mastery based on academic disciplines.

2.6 Course Load and Duration of Study

The minimum course load for the Bachelor of Pharmacy Study Program is 147 credit hours (SKS) or 245 ECTS, scheduled over eight (8) semesters, which can be completed in seven (7) semesters and a maximum of fourteen (14) semesters.

Semester	Total SKS / ECTS	COURSE GROUPS FOR UNDERGRADUATE			
		National Compulsory Courses	University Compulsory Courses	Study Program Compulsory Courses	Elective Courses
1	21 SKS / 35 ECTS	3 SKS/ 5 ECTS	9 SKS / 15 ECTS	9 SKS / 15 ECTS	-
2	21 SKS / 35 ECTS	3 SKS/ 5 ECTS	3 SKS/ 5 ECTS	15 SKS / 25 ECTS	-
3	19 SKS / 32 ECTS	-	-	19 SKS / 32 ECTS	-
4	20 SKS / 34 ECTS	-	-	20 SKS / 34 ECTS	
5	21 SKS / 35 ECTS	-		21 SKS / 35 ECTS	
6	20 SKS / 34 ECTS	-		20 SKS / 34 ECTS	
7	20 SKS/ 34 ECTS	-		10 SKS / 17 ECTS	10 SKS / 17 ECTS
8	5 SKS / 34 ECTS	-		5 SKS / 34 ECTS	
Total	147 SKS / 245 ECTS	6 SKS / 10 ECTS	12 SKS / 20 ECTS	119 SKS / 199 ECTS	10 SKS / 17 ECTS

2.7 Curriculum

SEMESTER I

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	NAS6112201	Pancasila and Civic Education	3		5
2	UIN6032201	Islamic Studies	4		7
3	UIN6032205	Qira'ah and Worship Practice		2	3
4	FIK6102101	Basic Science of Pharmacy	3		5
5	FIK6102102	Basic Science of Pharmacy Practice		1	2
6	FIK6102103	Biomedicine	2		3
7	UIN6014203	English	3		5
8	FIK6102104	Pharmaceutical Organic Chemistry	2		3
9	FIK6102105	Pharmaceutical Organic Chemistry Practice		1	2
Total			17	4	35
Total Credits Semester I			21		35

SEMESTER II

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	NAS6013202	Indonesian Language	3		5
2	UIN6021204	Arabic Language	3		5
3	FIK6102106	Islam and Health Sciences	2		3
4	FIK6102107	Pharmaceutical Microbiology	3		5
5	FIK6102108	Pharmaceutical Microbiology Practice		1	2
6	FIK6102109	Pharmacognosy	2		3
7	FIK6102110	Pharmacognosy Practice		1	2
8	FIK6102111	Human Anatomy, Physiology and Pathophysiology	2		3
9	FIK6102112	Human Anatomy, Physiology and Pathophysiology practice		1	2
10	FIK6102113	Physical Pharmacy	2		3
11	FIK6102114	Physical Pharmacy Practice		1	2
Total			17	4	35
Total Credits Semester II			21		35

SEMESTER III

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102115	Phytochemistry 1	2		3
2	FIK6102116	Phytochemistry 1 Practice		1	2
3	FIK6102117	Pharmacology and Toxicology	3		5
4	FIK6102118	Pharmacology and Toxicology Practice		1	2
5	FIK6102119	Medicinal Chemistry	2		3
6	FIK6102120	Physico-chemical analyses	2		3
7	FIK6102121	Basic Pharmaceutics	2		3
8	FIK6102122	Basic Pharmaceutics Practice		1	2
9	FIK6102123	Analysis of Raw Material	2		3
10	FIK6102124	Analysis of Raw Material Practice		1	2
11	FIK6102125	Pharmaceutical Biotechnology	2		3
Total			15	4	32
Total Credit Semester III			19		32

SEMESTER IV

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102126	Pharmacotherapy 1	4		7
2	FIK6102127	Analysis of Pharmaceutical Preparation	2		3
3	FIK6102128	Analysis of Pharmaceutical Preparation Practice		1	2
4	FIK6102129	Formulation and Technology of Solid Dosage Forms	2		3
5	FIK6102130	Formulation and Technology of Solid Dosage Forms Practice		1	2
6	FIK6102131	Phytochemistry 2	2		3
7	FIK6102132	Phytochemistry 2 Practice		1	2
8	FIK6102133	Pharmacokinetics	2		3
9	FIK6102134	Biopharmaceutics	2		3
10	FIK6102135	Biopharmaceutics and Pharmacokinetics Practice		1	2
11	FIK6102136	Halal Product Guarantee System	2		3
Total			16	4	34
Total Credit Semester IV			20		34

SEMESTER V

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102137	Pharmacotherapy 2	4		7
2	FIK6102138	Entrepreneur and Digital Pharmacy	2		3
3	FIK6102139	Research Methodology and Biostatistics	3		5
4	FIK6102140	Analysis of Drug, Food and Cosmetic Halal	2		3
5	FIK6102141	Analysis of Drug, Food and Cosmetic Halal Practice		1	2
6	FIK6102142	Formulation and Technology of Liquid and Semi-Solid Dosage Forms	2		3
7	FIK6102143	Formulation and Technology of Liquid and Semi-Solid Dosage Forms Practice		1	2
8	FIK6102144	Information Education and Communication	2		3
9	FIK6102145	National Health System	2		3
10	FIK6102146	Phytotherapy	2		3
Total			19	2	35
Total Credit Semester V			21		35

SEMESTER VI

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102147	Pharmacotherapy 3	4		7
2	FIK6102148	Formulation and Technology of Sterile Dosage Forms	2		3
3	FIK6102149	Formulation and Technology of Sterile Dosage Forms Practice		1	2
4	FIK6102150	Pharmaceutical Industry	2		3
5	FIK6102151	Pharmaceutical Service	2		3
6	FIK6102152	Pharmaceutical Service practice		1	2
7	FIK6102153	Pharmacy Management	1		2
8	FIK6102154	Interprofessional Education 1	1		2
9	FIK6102155	Health Regulations and Laws	2		3
10	FIK6102156	Method of Islamic Medicine	2		3
11	FIK6102157	Drug Stability	2		3
Total			18	2	34
Total Credit Semester VI			20		

SEMESTER VII

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102158	Pharmacotherapy 4	3		5
2	FIK6102159	Pharmacotherapy Practice		1	2
3	FIK6102160	Research Proposal Seminar	1		2
4	FIK6102161	Interprofessional Education 2	1		2
5	FIK6102162	Compounding and Dispensing	2		3
6	FIK6102163	Compounding and Dispensing Practice		1	2
7	FIK6102164	Hospital Pharmacy practice		1	2
8	-	Elective Courses	10		17
Total			17	3	34
Total Credit Semester VI			20		34

SEMESTER VIII

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102165	Undergraduate Thesis and Comprehensive Examination	5		8

ELECTIVE COURSES

No	Code	Courses	Credits (SKS)		ECTS
			Theory	Practice	
1	FIK6102301	Analysis of Biomedicine and Forensic	2		3
2	FIK6102302	Radiopharmaceutical	2		3
3	FIK6102303	Cosmetology	2		3
4	FIK6102304	Marine Natural Product	2		3
5	FIK6102305	Natural Product Technology	2		3
6	FIK6102306	Pharmacoeconomics and Pharmacovigilance	2		3
7	FIK6102307	Ethnopharmacy and Alternative Medicine	2		3
8	FIK6102308	Tissue Culture Technology	2		3
9	FIK6102309	Overdose and Poisoning Management	2		3
10	FIK6102310	Culture Cell Technology	2		3
11	FIK6102311	Pharmacoepidemiology	2		3
12	FIK6102312	Structure Elucidation	2		3
13	FIK6102313	Environmental Pharmacy	2		3
14	FIK6102314	Drug Design and Synthesis	2		3
15	FIK6102315	Drug Discovery	2		3
16	FIK6102316	Drug Delivery System	2		3

2.8 Course Description

Pancasila and Civic Education (3-0)

This course provides an understanding of Pancasila as the basis for character education and national life. Students will learn the importance of character education based on Pancasila values and how to apply them daily. In addition, Pancasila is studied in the context of the history of the Indonesian nation and as a state ideology, focusing on its philosophy and values. The meaning of each precept of Pancasila will be discussed along with its application in national life, including human values, Islam, and national insight. This lecture also highlights how to actualize Pancasila in the life of the nation and state, as well as introduces citizenship education (PKn) for personality development. Other topics discussed included national identity, globalization challenges, democracy, the constitution, the rule of law, human rights (HAM), relations between religion and the state, and good governance. At the end of the lecture, students will understand the principles of civil society and how to actualize them in daily life.

Person in charge: Siti Nadroh, M.Ag

Islamic Studies (4-0)

Islamic studies courses discuss the meaning, origins, types, elements, and functions of religion for human life and the meaning of Islam. Its characteristics, similarities and differences with other religions, the sources and main points of Islamic teachings. This course also discusses aspects of Islamic teachings on worship, spiritual and moral practice, Islamic history and culture, politics, education, da'wah, society, gender equality in aspects of Islamic teachings, and contemporary issues about Islam's contribution to the civilization of the Islamic world. In this course, the Interprofessional Education learning method is applied, which aims to introduce communication and cooperation between health professional students from the beginning.

Person in charge: Islamic Studies lecturer team

Qira'ah and Worship Practice (0-2)

This course is designed to equip students with understanding and skills in reading the Qur'an properly and correctly as a form of reflection of piety to Allah SWT. Students will study and demonstrate makhraj hija'iyah, Ghunnah reading, and Mad reading (long and short). After UTS, students will continue reading Ghorib readings and memorizing selected letters and verses, including health-related verses.

Person in charge: Lecturer Team

Basic Sciences of Pharmacy (3-1)

This course is a harmonious combination of theory and practice, integrating various basic science disciplines such as mathematics, biology, chemistry, and physics that are highly relevant to pharmaceutical science. In the theoretical aspect, students will learn the basics of calculations, the international system of units, the amount of concentration, measurement, and basic concepts of biology, including the organization of living things and the reproductive system. The chemical aspects discussed include substance form, tonicity, isotonic solution, atomic and molecular structure, chemical bonds, solution properties, acids-bases, and dapsar. In the practice sessions, students will apply these concepts through relevant laboratory experiments, connecting theory with practice directly to strengthen the understanding and skills required in pharmacy. As a compulsory course for S-1 students of the Pharmacy Study Program, this course ensures that students have a strong foundation in basic sciences that support practical applications in the pharmacy field.

Person in charge: apt. Yuni Anggraeni, M.Farm.

Biomedicine (2-0)

Biomedical courses focus on an in-depth understanding of human health and societal well-being, intending to outline how the human body functions from the molecular level to organ systems and organisms. Biomedical science is an essential foundation for pharmacy students because it underlies the discovery and design of therapeutic strategies and plays a key role in advancing the health industry and developing new therapies for diseases. The course covers many important topics, including cell biology, genetics, biomacromolecules, nutrition, carbohydrate metabolism, lipids, amino acids, proteins, xenobiotics, and biochemistry in pediatrics and older adults. In addition, this course also discusses fluid balance, electrolytes, and calcium regulation. By integrating biomedical science, students are expected to contribute to therapeutic innovations and solutions to health problems and their applications directly in clinical practice and the health industry.

Person in charge: Dr. apt. Lina Elfita, M.Si

English (3-0)

This course is designed to strengthen students' United Kingdom language skills in various important aspects, especially for TOEFL preparation and academic communication. Students will learn how to identify the answers to questions in the Listening section, which focuses on short conversations, and answer questions in the Written Expression section by understanding the structure of the subject, verbs, preposition objects, and the use of present and past participles. They will also practice creating simple sentences with one clause and answering TOEFL questions according to that structure. In addition, the course includes

reading analysis to answer questions about the main idea in the TOEFL Reading section and effective five-paragraph essay writing, including hooks, thesis statements, and transitions. Students will learn to construct sentences with multiple clauses using the right connectors and answer relevant TOEFL questions. In addition, they will be able to understand information from long speeches, answer questions based on stated and unstated information, and construct sentences using correct and parallel structures. Students will also hone their academic reading and writing skills, use modals, and deliver material orally smoothly and effectively in front of the class.

Person in Charge: Tryana M.A

Pharmaceutical Organic Chemistry (2-1)

This course integrates the theory and practice of organic chemistry to provide an in-depth understanding of the structure, characteristics, and reaction mechanisms of various classes of organic compounds. In the theoretical aspect, students will learn the basic concepts of organic chemistry and apply the theory to groups of compounds such as alkanes, cycloalkanes, alkenes, alkynes, alkyl halides, aromatics, alcohols, thiols, ethers, epoxides, aliphatic amines, aldehydes, ketones, carboxylic acids, as well as alpha carbonyl reactions and carbonyl condensation. They will understand each group of compounds' physicochemical properties and synthesis mechanisms. In addition to theory, the practice includes determining the physical and chemical properties of organic compounds, such as hydrocarbons, alcohols, phenols, aldehydes, ketones, carboxylic acids, esters, amines, and amides, as well as carrying out chemical reactions such as the manufacture of acetic acid from ethanol, diphenylmethanol from benzophenones, aspirin, and soap. The practice also includes crystallization and sublimation techniques, which will help students apply theory in laboratory experiments to strengthen their understanding of organic chemistry.

Person in charge: apt. Ismiarni Komala., MSc., PhD

Indonesian Language (3-0)

This course discusses the scientific basics of Indonesian for scientific writing. The Indonesian Language course has aspects of Indonesianness, Islam, and Pancasila. In particular, the Indonesian Language course interprets linguistic rules that can be applied in writing scientific papers. The material includes Speaking in Scientific Presentations, History and Language Development, EYD, Diction, Sentences, Paragraphs, Scientific Ethics, Essays, Popular Article Writing, Fishing Techniques, Bibliography, and others.

Person in Charge: Yang Merdiyatna, M. Pd.

Arabic (3-0)

This course is designed to equip students with comprehensive Arabic language skills through a theoretical and practical approach. Students will learn and understand various sentence structures in Arabic, including mufrad and plural, dhamir, al-fi'il al-madli (past verb), al-fi'il al-mudhari' (present verb), fi'il amr (imperative verb), and nakirah and ma'arifah (known and unknown nouns). In addition, they will delve into wazan tsulatsi mazid with various combinations of letters, such as wazan tsulatsi mazid bi harfin, harfain, and tsalatsi ahruf. Students will also learn the structure of sentences that contain 'umdah al-jumlah, khobar and its variants, al-mafa'il (object), and ma'ani al-adawat (the meaning of connecting words). In practice, students will apply this knowledge by conducting simple dialogues and writing guided texts that reflect their understanding of the structure of the sentence. This approach aims to develop students' ability to understand, observe, and write Arabic sentences correctly and communicate effectively.

Person in charge: Alfiah, S.Ag., M.Ag

Islam and Health Sciences (3-0)

This course provides an in-depth understanding of the relevance of science to health expertise, focusing on the development and integration of science in Islamic and Western perspectives. Students will explore the influence of science, culture, and civilization developed by Muslims on European and Western civilizations and examine the foundations of epistemology and methodology in nursing, pharmacy, and public health from both perspectives. This learning includes understanding the sources of science (ontology), the values and objectives of science (axiology), and the natural, social, and humanities sciences in the context of Islam and the West. In addition, students will understand the concept of integrating Islamic science with medical and health sciences and the roles and duties of each profession in interprofessional health services. Through this approach, students are expected to be able to connect theory and practice in the development of relevant and contextual health sciences.

Person in Charge: apt Barita Juliano Siregar., MM

Pharmaceutical Microbiology (3-1)

This course integrates microbiology theory and practice to support the pharmaceutical field by presenting basic concepts of microbiology, such as an introduction to the world of microbiology, bacteria, actinobacteria, archaea, and eukaryotic microorganisms such as fungi, algae, lichens, and protozoa. Theories also include viruses, bacteriophages, prions, viroids, microorganism growth, pathogenes, and microbial growth control, as well as microorganism metabolites, antibiotics, antimicrobial test methods, benefits of microorganisms in pharmaceuticals, drug and food damage assessment, and immunology systems

in an Islamic perspective. The practice involves introducing laboratory equipment, sterilization, media making, and techniques such as aseptic transfer of pure cultures, separation of mixed cultures, isolation and purification of microorganisms, as well as preparing dry preparations and staining of bacterial cells. Students will also conduct enzymatic activity testing, biochemical identification of microorganisms, antifungal activity tests, and antimicrobial tests by dilution and diffusion methods, determination of KHM and KBM, and sterility testing of specific and non-specific pharmaceutical preparations. This integration of theory and practice aims to facilitate an in-depth understanding and application of microbiological knowledge in the context of pharmaceuticals.

Penanggung Jawab: Dr. Isra Janatiningrum, M.Si.

Pharmacognosy (2-1)

This course is part of the Pharmaceutical Biology science, which focuses on using Indonesia's medicinal plants and their processing process to produce traditional medicines that support human health. Theoretical material includes the concept of pharmacognosy, including the definition, history, and development of pharmaceutical science and advances in herbal medicines in Indonesia, such as herbal medicine, standardized herbal medicine (OHT), and phytopharmaceuticals. The theoretical discussion includes the process of cultivating, harvesting, and processing medicinal plant simplicia, as well as the morphology and anatomy of Indonesia's medicinal plants, primary and secondary metabolites, as well as active ingredients such as carbohydrates, resin/resin, fats, oils, proteins, enzymes, tannins, essential oils, alkaloids, and glycosides. The practice involves processing herbal medicines, making simplisia, adulteration techniques, chemical identification of plant content, and microscopic analysis of plants containing carbohydrates, resin, fats, oils, proteins, enzymes, alkaloids, and glycosides. This integration of theory and practice aims to provide a comprehensive understanding of the use of medicinal plants in the manufacture of quality traditional medicines.

Person in Charge: Dr.apr. Eka Puteri., M.Si

Human Anatomy, Physiological and Pathophysiology (2-1)

This course provides an in-depth understanding of human anatomy and physiology through theory and practical work. Students will study the basic concepts of anatomy and physiology, including homeostasis, basic anatomical terminology, and human body tissues. They will be able to explain the anatomy and physiology of the integumentary, skeletal, muscular, nervous, endocrine, blood, cardiac, vascular, lymphatic, respiratory, digestive, excretory, and

reproductive systems, as well as their related disorders. In the practical component, students will learn the guidelines for human anatomy and physiology practicals, including anatomical positioning, observation of anatomical organs, histological images, and the physiology of various systems such as the digestive and cardiovascular systems, as well as observing the enzyme amylase and the effects of temperature. They will also observe the anatomy of the endocrine system, respiratory organs, urinary system, and skin physiology, as well as conduct observations of the organs and accessory glands of the male and female reproductive systems, along with the physiology of human vision.

Person in charge: apt. Marvel, M.Farm

Physical Pharmacy (2-1)

This course discusses physical and chemical phenomena relevant to drug manufacture, storage, and use. Topics studied include micromeritics, solubility systems, surface tensions, dispersion systems, as well as physical and chemical phenomena in drug storage, such as viscosity, rheology, and shelf life. In addition, this course also covers the process of dissolution and diffusion in the context of drug use. In practice, students will delve into these concepts directly through experiments that include micromeritics, surface tension, viscosity, rheology, dissolutions, solutions, suspensions, emulsions, and kinetics.

Person in charge: apt. Yuni Anggraeni, M.Farm

Phytochemistry I (2-1)

This course studies the role of plants as producers of medicinal compounds as well as the process of searching for and developing new medicinal compounds from plants, including how to extract and isolate chemical compounds. Students will study the definition, structure, physico-chemical properties, and benefits of medicinal compounds in the pharmaceutical field, as well as the biosynthesis of secondary metabolite compounds such as phenol-derived compounds and alkaloids. In practice, students will apply non-specific and specific parameter test techniques for the standardization of extracts of natural medicinal ingredients, including the determination of drying shrinkage parameters, specific weight, moisture content, ash content, solvent residues, pesticide residues, heavy metals, dissolved compounds in certain solvents, chromatogram patterns, total chemical group content, and certain chemical content levels.

Pnenanggung jawab: apt. Ismiarni Komala, M.Sc., PhD.

Pharmacology and Toxicology (3-1)

This course combines theory and practice in the fields of pharmacology and toxicology. The theory includes the basic principles of pharmacokinetics and pharmacodynamics, including ADME (Absorption, Distribution, Metabolism, and Excretion), the mechanism of action of drugs, neurotransmitters affecting the

central nervous system (CNS) and the autonomic nervous system (SSO), dose and response relationships, therapeutic indexes, drug classification based on the national list of essential drugs (DOEN), as well as toxicological and teratogenicity parameters. In practice, students apply these concepts by studying the effects of drugs directly through experimental animals. The practice includes injection methods with various routes of drug administration, as well as testing the effects of analgetic-antipyretic, diuretic, midriatic-myotic, CNS stimulants, anticonvulsants, antidiabetics, and general anesthesia, including the stages of anesthesia in experimental animals. Students will also screen pharmacological activities and test drug toxicity in vitro and in vivo.

Person in charge: apt. Yardi., Ph.D

Medical Chemistry (2-0)

This course discusses the basic concepts of medical chemistry, including the requirements of an ideal drug and its design objectives. Students will learn about the guide compounds, associated requirements, and the flow of new drug discovery. In addition, they will analyze the stages of drug discovery and development, identify design techniques, and understand the relationship between drug structure and activity through a quantitative approach. Students will also review scientific articles related to various diseases, such as cardiovascular, cancer, diabetes, and gastrointestinal in the context of medical chemistry and compare conventional and modern drug design approaches. With cooperative and problem-based learning methods, this course is designed to strengthen students' theoretical understanding and analytical skills in the field of medical chemistry

. Person in Charge: Prof.Dr.apr.Zilhadia., M.Si

Physicochemical Analysis (2-0)

This course discusses chemical analysis carried out using instrumental methods of UV-vis spectrophotometer, light emission and atomic absorption (AAS), infrared spectrophotometer (IR), mass spectrophotometer (MS), gas chromatography (GC), high-performance liquid chromatography (HPLC), gas mass spectroscopy (GCMS), liquid chromatography-mass spectroscopy (LCMS), Core Magnetic Resonance (RMI)

Person in charge: Dr. apt. Supandi, M.Si

Basic Pharmaceuticals (2-1)

This course combines theory and practice, addressing the theory, principles, and techniques in compounding, packaging, and storing quality non-sterile pharmaceutical preparations. Students will learn how to solve problems related to compounding, quality assurance, and quality inspection of pharmaceutical preparations. In practice, students apply these theories directly, starting from the

compounding process to packaging and storage and evaluating the quality and safety of non-sterile pharmaceutical preparations.

Person in charge: apt. Ofa Suzanti Betha., M.Si

Analysis of Raw Material (2-1)

This course is mandatory for S-1 students of the Bachelor of Pharmacy Study Program and integrates theory and practice in analyzing and identifying synthetic drug raw materials used for pharmaceutical therapy. Students will learn how to analyze raw medicinal materials to ensure the quality and safety of hazardous compound contamination and apply Islamic principles related to the use of *toyyib* and *halal* ingredients. This analysis includes studying chemical-physical properties, raw material requirements, comparative references, and applying tests to drugs such as analgetic-antipyretic, anti-inflammatory, antibiotic, sulfonamide, and alkaloids. In practice, students will qualitatively identify raw materials for various classes of drugs, including alkaloids, analgetics, antibiotics, antihistamines, sulfonamides, vitamins, and essential oils, as well as quantitatively through acid-base titration, redox, iodimetry, nitrimetry, and UV-Vis spectrophotometry tests. This course aims to ensure that students have a deep understanding of the analysis and identification of raw drug materials in terms of quality and safety.

Insurer of Jawab: Dr.apt Supandi. M.Si

Pharmaceutical Biotechnology (2-0)

Pharmaceutical biotechnology is a relatively new and developing field in which the principles of biotechnology are applied to the development of drugs. The majority of therapeutic drugs on the market today are bioformulations such as antibodies, nucleic acid products and vaccines. The bioformulation is developed through several stages which include: understanding the underlying principles of health and disease, the fundamental molecular mechanisms that govern the function of related biomolecules, and the synthesis and purification of molecules. Biotechnology principles such as recombinant DNA technology are used to design more effective protein-based drugs such as erythropoietin and fast-acting insulin. The initial chapter offers a broad introduction to biotechnology principles such as recombinant DNA technology – the field that underpins the entire subject, cloning, production and purification of protein molecules. The next chapters focus on gene therapy, stem cell-based therapy, vaccines, monoclonal antibodies. This pharmaceutical biotechnology course also discusses plant tissue and cell culture, fermentation technology, bioinformatics and biosafety & bioethics. Finally, this pharmaceutical biotechnology course is expected to explore science, biotechnology, and medical applications related to certain categories of biotech products. It is not only protein-based compounds but also nucleic acids and cell-based products.

Person in charge: Dr. apt. Lina Elfita, M.Si, Andzar Fikranus Shofa, M.Farm.

Pharmacotherapy 1 (4-0)

This course focuses on pharmacotherapy and rational medicine, with an Islamic perspective as its ethical framework. Students will learn the principles of choosing the right medication for various health conditions, including chronic obstructive pulmonary disease (COPD), asthma, immunological disorders such as lupus, blood disorders, coagulation disorders (DVT), and hypertension. In addition, they will also analyze drug selection for heart conditions such as pectorial angina, ischemic heart, as well as other complications such as stroke, hyperlipidemia, and acute and chronic kidney failure. With an analytical approach, students are expected to be able to formulate effective and ethical treatment plans based on the concept of pharmacotherapy. Teaching is conducted through case discussions, cooperative learning, and literature studies, equipping students with critical skills in pharmacy practice.

Penanggung jawab: Dr. apt. Nurmeilis., M.Si

Analysis of Pharmaceutical Preparations (2-1)

This Pharmaceutical Preparation Analysis **course** integrates theory and practice to understand pharmaceutical analysis qualitatively and quantitatively comprehensively. Students will learn the definition, scope, and importance of pharmaceutical analysis, including sample preparation, validation of analytical methods according to ICH guidelines, as well as various analytical methods such as volumetry, spectrophotometry (UV-VIS and AAS), and chromatography techniques (Thin-Layer Chromatography, KLT-densitometry, High-Performance Liquid Chromatography, and Gas Chromatography). In the practice section, students will apply this theory directly through sample preparation, method validation, and analysis using laboratory tools. This course also includes the results of lecturers' research in the field of pharmaceutical preparation analysis to deepen students' insights.

Person in charge: Dr.apt.Supandi., M.Si

Formulation and Technology of Solid Dosage Forms (2-1)

This course discusses bulk analysis of active ingredient properties, granule formulation using wet granulation method, granule evaluation, tablet formulation with granulation method, tablet evaluation, and formulation of suppository preparations. In the practice section, students will learn basic knowledge about solid preparations, preformulations in solid preparations, and the manufacture of powders, granules, capsules, and tablets. Students will also explore tablet manufacturing methods, machine technology in tablet manufacturing, and the application of CPOB (Good Drug Manufacturing Practices), and identify and overcome problems in the tablet production process. In addition, the evaluation of tablet preparations and insert preparations such as suppositories and ovules

will be discussed, including specialized solid preparations such as controlled loose tablets, microencapsulation and patches.

Person in charge: apt. Nelly Suryani, Ph.D

Phytochemistry 2 (2-1)

This course theoretically explains the structure, biosynthesis, physical and chemical properties, and pharmaceutical applications of secondary metabolites such as terpenoids, essential oils, glycosides, carbohydrates, peptides, polyketides, fatty acids, and proteins. In addition, this course integrates Islamic concepts into the study of secondary metabolites. In the practice section, students will learn the isolation of secondary metabolite compounds from plants, starting from sample collection, pre-extraction, solid-liquid extraction, phytochemical screening, liquid-liquid extraction (partition), column chromatography, and preparative KLT. This practice aims to provide hands-on experience in isolation techniques and secondary metabolite analysis.

Person in charge: apt. Ismiarni Komala, PhD,

Pharmacokinetics (2-0)

The Pharmacokinetics course studies the application of pharmacokinetic science in pharmaceutical service activities in hospitals, pharmacies, or other health service places. The subjects taught include drug pharmacokinetics (absorption, distribution, metabolism, and elimination), changes in drug pharmacokinetics, calculations, and application of clinical data in the use of drugs in special populations such as geriatric, pediatric, kidney disorders, liver disorders, pregnant and lactating women.

Person in charge: apt. Suci Ahda Ahda Novianti

Biopharmaceutics (2-0)

Biopharmacology is studied to understand the relationship between the physicochemical properties of drugs, their formulation, and how they are released with the kinetics of drug absorption and bioavailability in the body. Thus, in this course, you will learn about the overview of biopharmaceutics; Biopharmaceutical characteristics of intravascular and extravascular routes; evaluation of the biopharmaceutical properties of drugs; Biopharmaceuticals of oral and nonoral route drug preparations (bucular, sublingual, rectal, dermal, transdermal, parenteral, pulmonal); Bioavailability and bioequivalence of drug preparations; The design of the test is comparatively solved. After taking this course, it is hoped that graduates will be able to apply it to develop pharmaceutical products and services.

Person in charge: apt. Yuni Anggraeni., M.Farm

Biopharmaceutics and Pharmacokinetics Practice (0-1)

This course covers a wide range of important pharmaceutical and pharmacokinetic analysis topics, including calibration curve generation, diffusion tests, bioadhesive tests, sustained release and immediate release tablet dissolution tests, and analysis of paracetamol in biological fluids. Students will also study the simulation of in vitro pharmacokinetic models of drugs after intravenous administration using open compartment 1 and 2 models, intravenous infusion, oral administration, and double intravenous administration. In addition, the analysis of total paracetamol in urine footage and the concept of bioavailability and bioequivalence (BABE), will be discussed further to understand the effects of the drug on the body.

Person in charge: Suci Ahda Novitri, M.Si.

Halal Product Guarantee System (2-0)

The Halal Product Assurance System **course** is mandatory for Bachelor of Pharmacy Study Program students, which discusses the principles and methods of halal products based on the Qur'an and Hadith. This course emphasizes the importance of using halal products, including pharmaceutical preparations, as well as identifying critical points of basic ingredients derived from plant-based, animal, microbial, vitamin, and other sources. In addition, students will learn the procedures for obtaining a Halal Certificate and implementing the **Halal Assurance System** to ensure the halalness of products sustainably and consistently. Students will also be equipped with analytical techniques to identify ingredients based on critical points of halal and methods to analyze the presence of non-halal components in pharmaceutical products or preparations. After completing this course, it is hoped that graduates can apply these concepts in developing halal products and implement a halal product assurance system in the pharmaceutical sector.

Person in Charge: Prof.Dr. apt. Zilhadia., MSi.

Pharmacotherapy 2 (4-0)

The Pharmacotherapy 2 course focuses on pharmacotherapy in the respiratory, gastrointestinal, autoimmune, bone, and joint systems. Each system discussed in this course includes pathophysiology, pharmacodynamics, pharmacokinetics, drug interactions, MESO, contraindications, drug administration according to guidelines, case analysis, and dose calculation.

Penanggung jawab: Dr.apt. Nurmeilis., M.Si

Entrepreneurship and Digital Pharmacy (2-0)

This course equips students with a basic understanding of entrepreneurship, its goals, and benefits, as well as the ability to identify important factors and strategies in entrepreneurship. Students will learn to recognize business opportunities, conduct SWOT analysis, and design marketing strategies and make business plans. In addition, this course also teaches the concept of entrepreneurship from an Islamic perspective, Islamic business culture, Islamic business strategies, and insights into waqf and the profile of Muslim entrepreneurs. In the middle of the semester, students will understand the pharmaceutical value chain and various aspects of the pharmaceutical business such as manufacturing, distribution, pharmacy, insurance, clinics, and laboratories. Students will also study the feasibility study of the pharmaceutical business in Indonesia the digitalization of the pharmaceutical business, including telemedicine, telemarketing, e-prescribing, e-dispensing, and remote patient monitoring.

Person in charge: apt. Barita Siregar., MM

Research Methodology and Biostatistics (3-0)

This course discusses research methodologies and scientific writing. The materials discussed include an introduction to science and research, research planning and competition, research population and sampling, data analysis, clinical research design, validity and feasibility of research instruments, qualitative and quantitative research, experimental research design, proposal and reporting of research results, scientific articles and presentations.

Penanggung jawab: Dr. Isra Janatiningrum, M.Si.

Analysis of Drug, Food and Cosmetic Halal (2-1)

This course provides an in-depth understanding of halal analysis in medicine, food, and cosmetics, integrating theory and practice to cover various important aspects. Theoretically, students study the scope of halal analysis, the role of instrumentation in halal analysis, and methods of identifying non-halal ingredients such as pork and lard in products using PCR, RT-PCR, FTIR, SDS-PAGE, and KCKT techniques. In addition, they also understand how to analyze alcohol content using GC-MS, as well as the chemometric application and MINITAB software for halal analysis. The practice is designed to provide hands-on skills in laboratory analysis, including peroxide numbers in cooking oil, diastase enzyme content in honey, sodium benzoate preservative levels, ethanol, ethylene glycol, and DEG levels in drugs, as well as the detection of pork and pork gelatin by PCR and FTIR techniques. Students will also apply FTIR and chemometric methods to analyze various oils and cosmetic formulations, providing essential practical skills to ensure halal and product quality.

Person in Charge: Prof. Dr. Zzilhadia. M.Si

Formulation and Technology of Liquid and Semi-Solid Dosage Forms (2-1)

The Liquid and Semi-Solid Preparation Formulation Technology **course** is mandatory for S-1 students of the Pharmacy Study Program, and it integrates theory and practice in developing pharmaceutical products. In theory, students study the development of pharmaceutical products, preformulations, as well as the formulation and production of liquid preparations such as solutions and suspensions, as well as semi-solid preparations such as creams, gels, pastes, and ointments, including the quality evaluation of each type of preparation. In the practice, students in the fifth semester are involved in practical activities such as preformulation, formulation, manufacture, and quality evaluation of oral solution preparations, suspensions, emulsions, semi-solid preparations, and the manufacture of purified water for production. The practice also includes the calculation and preparation of raw materials, verification of equipment and raw materials, filtration of solutions, filling of products into primary packaging, and designing and manufacturing etiquette, brochures, and packaging. Verification of packaging results and production documentation is also taught to ensure quality and compliance in every stage of pharmaceutical preparation production.

Lecturer in charge: apt. Yuni Anggraeni. M.Farm

Information Education and Communication (2-0)

The Information Communication and Education course contains subjects about the basics of communication, ways to communicate, providing information, counseling, counseling, and education about drugs to pharmaceutical stakeholders.

Person in charge: apt. Yardi., M.Si., PhD.

National Health System (2-0)

In this course, it is discussed the National Health System, Public Health Service Efforts, Health Insurance and BPJS Kesehatan, the implementation of BPJS Kesehatan financing with the capitation system and an understanding of Ina-CBGs (Indonesian-Case Based Groups), the national Formulary, E-Catalogue and Drug procurement with e-purchasing procedures based on e-catalogs, Pharmacoepidemiology, Pharmacoconomics, and Pharmacovigilance.

Person in charge: apt. Marvel, M.Farm

Phytotherapy (2-0)

This course discusses in depth the role of herbal medicine in conventional medicine systems, focusing on quality assurance of raw materials, prospects for preventive and curative purposes, and their application in various body systems. Students will understand the contribution of herbal medicine in the respiratory

system and gastrointestinal systems, as well as in overcoming infectious diseases such as antibacterial, antiviral, and antifungal. In addition, this course covers the role of herbal medicine in diseases of the central nervous system, cardiovascular disorders, endocrine system, and hormonal system. Students will also study the development of phytotherapy formulas with specific pharmacological effects, including anti-inflammatories for osteoarthritis and rheumatoid arthritis, immunomodulators, antioxidants, antitumors, and anticancer. With this understanding, it is hoped that students can apply their knowledge to develop and utilize herbal medicines effectively and with quality.

Pharmacotherapy 3 (4-0)

Overall, the pharmacotherapy course is about managing rational therapy in various cases of organ system diseases, including Psychiatric, obstetric, gynecological, infectious, and cancer pharmacotherapy.

Person in charge: apt. Yardi., PhD

Formulation and Technology of Sterile Dosage Forms (2-1)

This course integrates theory and practice to provide an in-depth understanding of the manufacture and evaluation of sterile preparations. In the theoretical aspect, students learn how to establish formulas manufacturing procedures, evaluate the quality of sterile preparations, and solve problems related to the design, manufacture, and quality testing of sterile preparations. The practice includes practical activities such as preparing tools, equipment, production rooms, personnel, and active ingredients, raw materials, and packaging materials to produce sterile preparations. Students will carry out sterile preparation procedures, conduct quality control during manufacturing, and carry out packaging and testing processes, including sterility, endotoxin, pyrogen, and sterile preparation uniformity testing. With this combination of theory and practice, students must master production techniques and evaluate sterile preparations comprehensively.

Person in charge: apt. Ofa Suzanti Betha, MSi.

Pharmaceutical Industry (2-0)

Pharmaceutical Industry is studied as the basis for carrying out the process of developing and manufacturing pharmaceutical preparations in the industry. Thus, in this course, you will learn about product development, basic principles of occupational safety, and CPOB, which includes the production process, buildings and facilities, quality control, qualification and validation; batch approval, product quality assessment, risk assessment, change control, and document control; self-inspection, quality audit, supplier audit and approval; complaints and replacement products; storage and delivery of drugs; Waste; product irregularities. After

participating in this course, it is hoped that graduates will be able to apply it to development and production activities in the pharmaceutical industry.

Person in charge: apt. YuniAnggraeni., M.Farm

Pharmaceutical Services (2-1)

This course integrates theory and practice in pharmaceutical services, focusing on the role of pharmacists/pharmacists in various health facilities such as hospitals, pharmacies, health centers, and clinics, as well as Islamic views on the profession. Students will learn the responsibilities of pharmacists in prescription screening, drug use history tracing, drug reconciliation, drug therapy monitoring (PTO) and drug side effect monitoring (MESO). In addition, students will be equipped with knowledge about blood drug level checks (PKOD), pharmacy home care services (Pharmacy Home Care), and the concept of pharmacy care and clinical pharmacy. Presentation skills will also be developed to ensure students can convey information well. In addition, at UTS, students will delve into drug use evaluation (EPO), patient compliance, prescription rationality, and management of high-risk drugs (LASA and high alert), so that they are ready to apply this knowledge in real practice.

Person in charge: apt. Yardi, Ph.D

Pharmacy Management (1-0)

This course provides an in-depth understanding of the definition of management and the concept of specific management science in pharmacy. Students will study drug planning using the VEN method and Pareto analysis, as well as drug procurement and distribution in pharmacies. The material also includes prescription services, management of narcotic and psychotropic drugs, and handling of damaged and expired drugs. In addition, this course discusses the procedures for establishing a pharmacy, determining drug prices, taxes, cost of goods sold, profit and loss statements and balance sheets. Students will also undertake a feasibility study for establishing a pharmacy, which includes financial and operational analysis to ensure the sustainability and profitability of the pharmacy business.

Person in charge: apt. Yardi., PhD

Interprofessional Education I (1-0)

The Health Worker Professional Integration 1 (IPE 1) course contains subjects regarding health worker communication, teamwork and conflict management, interprofessional communication and leadership, and the role of each health professional in a case study or treatment problem.

Person in Charge: Dr. Azrifitria, M.Si., Apt

Health Regulations and Laws (2-0)

This course aims to provide an in-depth understanding of the laws and regulations that apply in Indonesia, especially in health and pharmaceuticals. Students will be able to explain the hierarchy of laws and regulations and classify regulations related to health and pharmaceuticals. In addition, students will analyze Indonesian pharmacists' professional discipline and professional code of ethics and study relevant laws and regulations in carrying out pharmaceutical work in various sectors, including pharmacies, Pharmaceutical Wholesalers (PBF), hospitals, and the pharmaceutical industry. Through this learning, students are expected to understand and apply legal provisions that regulate pharmaceutical practices effectively and ethically.

Person in charge: apt. Marvel, M.Farm.

Method of Islamic Medicine (2-0)

This course aims to provide an in-depth understanding of the history and development of Tibb as an Islamic medicine system. Students will distinguish Islamic medicine from other medical systems and understand the basic principles of Tibb, including the concepts of Physis and temperament. In addition, students will learn how to distinguish temperament qualities and conduct temperament assessments on themselves and others. This course also examines the relationship between Physis, temperament, environment, and lifestyle, as well as understanding the influence of air, weather, and breathing in Tibb. The effects of food, drink, sleep, emotions, and feelings on temperament and Physis will be discussed comprehensively, including the impact of toxin elimination, toxins, and cupping therapy. Through theory and practical application, students are expected to be able to apply the principles of Tibb in the context of health and medicine.

Person in charge: apt. Ofa Suzanti Betha. M,Si

Drug Stability (2-0)

This course discusses the role and scope of drug stability, chemical degradation pathways, reaction kinetics, factors affecting chemical stability, stabilization of drug compounds from chemical degradation, physical stability of drug compounds, stability of preparations (solutions, suspensions, emulsions, semi-solids, tablets, capsules, etc.), stability test programs (preformulations, formulations, clinical trials, and final products) according to ICH, protein stability.

Person in charge: apt. Nelly Suryani., PhD

Pharmacotherapy 4 (4-1)

The Pharmacotherapy 4 **course** combines theory and practice to provide an in-depth understanding of pharmacotherapy in the treatment of hormonal disorders,

diseases of the nervous system, and mental disorders. In theory, students study pathophysiology, pharmacodynamics, pharmacokinetics, drug interactions, MESO (Medical, Economic, Social, and Other Factors), contraindications, and drug administration following guidelines. Students will also develop case analysis skills and dose calculations in the context of these various disorders. The practice in this course focuses on analyzing case studies related to drug-related problems (DRP) commonly found in healthcare facilities. The case studies, designed based on the UKAI CBT blueprint, cover the cardiovascular system, infections, endocrine system, respiratory system, gastrointestinal system, renal and urinary system, bone and joint, skin, and oncology. These cases were analyzed using the Cipolle and PCNE methodologies to equip students with the practical skills required for effective pharmacotherapy management.

Person in charge: apt. Yardi., PhD

Research Proposal Seminar (1-0)

The research proposal seminar is a mandatory course by Pharmacy students. The research proposal seminar examines the thesis proposal, which includes the selection of the title, the preparation of the background, the problem, the formulation of the problem, the study of the theory, and the research method so that students can produce a research proposal. The research proposal is then disseminated as a seminar on research proposals.

Person in Charge: Study Program

Interprofessional Education 2 (1-0)

The Health Worker Professional Integration 2 (IPE 2) course contains subjects regarding the concept, types, classification, and characteristics of disasters, the impact of disasters on health, the principles of disaster management, disaster preparation, interprofessional communication, applying interprofessional roles and responsibilities in disaster management. Practice.

Person in charge: apt Suci Ahda., M.Farm

Compounding and Dispensing (2-1)

This course thoroughly explains the planning, preparation, and delivery of non-sterile and sterile pharmaceutical preparations, emphasizing quality assurance principles and pharmaceutical service standards. Through various case studies, students will learn to prepare facilities and infrastructure, plan, and mix solid preparations (such as powders, tablets, granules, suppositories), liquid preparations (such as syrups, elixirs, suspensions, emulsions), and semi-solid preparations (such as creams, ointments, gels, pastes, cosmetics). The practice includes the preparation of Personal Protective Equipment (PPE), compounding tools and facilities, preparing documents, and completing calculations in the compounding process. Students will be trained in compounding pharmaceutical

preparations on a small to large scale, including compounding of capsules, emulsions, sterile preparations (such as injections and eye fluids), and specialty cosmetics. The midterm exam tests the ability to practice compounding pharmaceutical preparations according to pharmaceutical standards and solve problems that arise in the compounding process.

Person in charge: apt Ofa Suzanti Betha., M.Si

Hospital Pharmacy Practice (0-1)

This course discusses disease symptoms and diagnosis, drug therapy selection and regimen, drug use monitoring, drug information services, drug dispensing and drug storage in hospitals, and laboratory data interpretation.

Penanggung jawab: Dr.apr. Nurmeilis, M.Si, apt. Azrifitria, M.Si, apt. Yardi, Ph.D, apt. Suci Ahda Novitri, M.Si., apt. Marvel, M.Farm., apt. Mita Restinia, M.Farm, apt. Rurynta Ferly Shavira, M.Farm

Undergraduate Thesis and Comprehensive Examination (4+1)

The Thesis and Comprehensive Exam courses are the final stages of the undergraduate pharmacy program, aiming to measure student competence as a whole. Through the Thesis, students are required to design, implement, and compile original scientific research reports under the guidance of their supervisors, focusing on analytical, critical, and innovative skills following academic standards and research ethics. On the other hand, the Comprehensive Exam aims to evaluate students' mastery of all the materials they have studied during their studies, including pharmacology, pharmaceutical chemistry, clinical pharmacy, and others, and test their ability to solve problems theoretically and practically. These two components ensure students are ready to become professional and competent pharmacists.

Person in charge: study program

Analysis of Biomedicine and Forensic (2-0)

This course discusses the application of pharmaceutical science in law (handling forensic samples, drug abuse, alcohol abuse, chemical toxins, food toxins, DNA).

Person in charge: Dr. apt. Supandi, M.Si.

Radiopharmaceuticals (2-0)

This course explains radiation in the pharmaceutical field. Some of the topics that will be discussed in this course include: radioactivity and its effects, radiopharmaceuticals, principles of radiation detection and measurement, radiation protection and dosimetry, radiobiology and safe handling, radiopharmaceuticals in hospitals, radiation sterilization, preservation of drugs

and food, radioactivity in individuals, radiation safety in nuclear drugs, radioactive waste, radioactive waste management, and radioactive safety guidelines.

Person in charge: Andzar Fikranus Sofa. M.Farm

Cosmetology (2-0)

This course is a mandatory elective course for S-1 students of the Bachelor of Pharmacy Study Program. This course provides an overview of cosmetics, the anatomy and physiology of skin and hair, cosmetics for basic use (cleansers, fresheners, moisturizers), sunscreens and their preparations, body care cosmetics (body lotion, soap, body cologne, body scrub, deodorant and antiperspirant), hair care cosmetics (shampoo, conditioner, hair tonic), SPA, anti-premature aging and its preparations, decorative cosmetics, government regulations regarding cosmetics, adverse cosmetic reactions, and anti-acne and its preparations.

Person in charge: apt. Nelly Suryani, M. Farm., Ph. D

Natural Product Technology (2-0)

This course equips students with an in-depth understanding of natural ingredient drug formulations, ranging from conventional to modern drugs. Students will learn various sources of raw materials, raw material processing techniques, and the process of processing herbal medicine raw materials. Students will also be able to explain the steps of collecting raw materials, preparing simplicia, and manufacturing and standardizing extracts and simplisia. In addition, students will understand the principles of good herbal medicine production, including aspects of GMP (Good Manufacturing Practice) and QC (Quality Control) in the herbal medicine industry. This course also comprehensively discusses the herbal medicine industry, including the stages of preparing raw materials, grinding, and extracting herbal raw materials on an industrial scale. Students will understand the production process of herbal tablets, essential oil technology, and aromatherapy applications.

Person in Charge: Dr.apr. Eka Puteri M.Si

Pharmacoeconomics and Pharmacovigilans (2-0)

This course provides a comprehensive understanding of pharmacoeconomics and pharmacovigilance. Students will learn terms and definitions in pharmacoeconomics and understand the measurement of therapeutic outcomes. In addition, students will be able to analyze the cost of therapy through cost-minimization, cost-benefit, cost-effectiveness, and cost-utility approaches, as well as complete case studies related to pharmacoeconomics applications. In the pharmacovigilance section, students will learn the definition, understand Adverse Drug Reactions (ROMs) levels I and II, and the role of BPOM and pharmacists in pharmacovigilance. Students will also be trained to fill out forms and report drug

side effects through relevant case studies. This course is designed to equip students with knowledge and skills in analyzing the economic aspects of drug therapy and understanding the importance of drug safety supervision in pharmaceutical practice.

Person in charge: apt. Marvel. M.Farm

Drug Delivery System (2-0)

In this course, the purpose of the drug delivery system is discussed; Limitations of conventional drug delivery systems; Basic concepts of biopharmacy and pharmacokinetics; Timing for optimal therapy; Terminology of drug delivery and targeting systems; Classification of drug delivery systems; Drug targeting system; The importance of nanocarriers in drug delivery; polymer-based nanoparticles (Polymeric nanoparticles, Polymer micelles, Polymeric vesicles and niosomes); lipid-based nanoparticles (Liposomes, Lipoproteins, Solid lipid nanoparticles, Lipidic core nanocapsules); Microemulsions as Vehicles in Drug Delivery; Gastroretentive Drug delivery system; Transmucosal Oral Drug Delivery System; Drug Delivery System Through the Lungs, Eyes, Rectals, Intrauterin, Vaginal, Transdermal, and Parenteral.

Person in charge: apt yuni Anggraeni., M.Farm

Drug Discovery (2-0)

This is an elective course for S-1 students of the Bachelor of Pharmacy Study Program. This course discusses the early history of drug discovery, pre and post-covid drug discovery, stages of drug discovery, modern drug discovery techniques, evaluation of drug-target interactions in drug discovery, rational drug design, modification and optimization in drug design, HKSA approach in drug discovery, pharmacokinetic profile determinant, pharmacodynamics, and toxicity of drug candidates.

Person in charge: apt Rosa Adelina., M.Farm

Structure Elucidation (2-0)

This course aims to equip students with the ability to analyze and interpret spectral data to determine the structure of organic compounds through various spectroscopic techniques. Students will study the UV-Vis, infrared, and mass spectrums to understand organic structures. After the Midterm Exam, the focus shifts to the $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, and 2D NMR spectrums. In addition, students will learn to combine various spectral data, including UV-Vis, IR, MS, and NMR, to analyze organic compounds' structure comprehensively. This course provides an in-depth understanding of important spectroscopic techniques in the structural analysis of organic compounds.

Person in charge: apt. Ismiarni Komala.,M.Sc., PhD

Environmental Pharmacy (2-0)

This course provides a basic understanding of environmental pollution and waste management, especially those related to pharmaceutical waste. Students will learn about various forms of pollution that occur in water, soil, air, and plants and understand laws related to pollution control and pharmaceutical waste management. In addition, students will learn the basic principles of biosafety and biosecurity, types of waste, chemical symbols, and how to store them safely. The impact of pharmaceutical waste on the environment will also be explained in detail. Students will also learn the concepts of BOD (Biochemical Oxygen Demand) and COD (Chemical Oxygen Demand), types of pollutants based on their source and nature, physical and chemical parameters of drinking water, as well as wastewater treatment technology, including COVID-19 waste management and WWTP (Wastewater Treatment Plant) systems. This course provides a solid foundation in understanding environmental pollution and efforts to control and manage waste sustainably.

Person in charge: apt. Rosa Adelina., M.Si

Pharmacoepidemiology (2-0)

This course equips students with a fundamental understanding of pharmacoepidemiology, including an introduction to various health sectors' basic concepts and roles. Students will study methods used in pharmacoepidemiology and commonly used observational study designs. In addition, students will learn the application of experimental studies in pharmaceutical services and the importance of postmarketing surveillance in monitoring drug safety. Other topics include pharmacoepidemiology studies on vaccine safety, risk management, drug utilization review, pharmacovigilance, pharmacoconomics, and drug side effect monitoring systems (ESO) in Indonesia. This course provides a strong foundation for students to understand the application of pharmacoepidemiology in the world of health and pharmaceutical services.

Person in charge: apt. Mita Restinia., M.Farm

Marine Natural Product (2-0)

The Marine Natural Product course discusses pharmaceutical aspects related to marine resources and the use of natural materials from aquatic ecosystems. Students will learn the biological and chemical potential of marine organisms and techniques for processing and extracting active ingredients from these sources. In addition, this course also covers aspects of sustainability and conservation of marine resources, the importance of research in finding new drugs, and practical applications in the development of ocean-based pharmaceutical products. Through case studies and experiments, students will be invited to explore innovations in marine pharmacy and understand the challenges faced in responsibly using these resources. Thus, this course aims to equip students with

the necessary knowledge and skills to contribute to the sustainable development of pharmaceuticals from marine ecosystems.

Respondent: apt. Ismiarni Komala., M.Sc. PhD

Culture Cell Technology **(2-0)**

This course focuses on understanding plant tissue culture and its benefits in biotechnology. Students will learn about the factors that support the success of tissue culture, including proper planting media and preparation techniques and various sterilization techniques that are important to prevent contamination. In addition, students will be taught about the explant sources used in tissue culture and the application of this technique to different types of plants. Students will also delve into subculture and acclimatization techniques and undertake a small project in the laboratory that includes the application of tissue culture techniques, where they will present the results of their project. As such, this course is designed to provide a strong theoretical understanding and practical experience in plant tissue culture.

Person in Charge: Dr.Isra Jannatiningrum., M.Si

III. LEARNING SYSTEM

3.1 Basic Definition

Some basic definitions used in the semester credit system are explained below.

A semester is the smallest unit of time used to express the duration of an educational program's teaching and learning process. The organization of a complete academic program from start to finish will be divided into semester-based activities, so at the beginning of each semester, students must plan their learning activities for that semester.

One semester is equivalent to approximately 16 (sixteen) working weeks of learning activities and concludes with a final semester examination. One academic year consists of two regular semesters: the odd and even.

Semester Credit Units / Satuan Kredit Semester (SKS) are units used to indicate:

1. The amount of student study load.
2. The recognition of students' learning efforts.
3. The effort required by students to complete a program, whether a semester-based or full program.
4. The effort required for educational delivery by the instructors.

Courses Load is the number of SKS taken by a student in a particular semester. At the same time, Cumulative Study Load is the minimum number of SKS that a student must complete to be considered as having completed a specific study program.

Cumulative study time is the maximum time limit that a student must adhere to in completing their studies in an educational program. The minimum and maximum cumulative study loads for the Bachelor of Pharmacy Study Program are set at 147 SKS and 160 SKS, respectively, scheduled for an eight-semester study period and a maximum of 14 semesters

One SKS (Satuan kredit semester) of lecture activity is determined to be equivalent to the study load for each week of a semester, consisting of the following three activities:

1. One hour (50 minutes) of face-to-face interaction.
2. One hour (60 minutes) of structured assignments.
3. One hour (60 minutes) of independent work."

One SKS (Semester Credit Unit) seminar activity is primarily based on lecture activities (item 1). The number of references used and summarized for presentation in front of the forum is a minimum of 3 (three) titles, depending on

the weight of the references. One SKS of laboratory practical activity is determined to be equivalent to a study load of about 170 minutes of scheduled laboratory work, accompanied by:

1. The course instructor planned 1-2 hours of structured activities, including discussions, seminars, literature studies, laboratory/field research, and participation in an institution.
2. 1-2 hours of independent activities, including searching for books/journals in other libraries, preparing research, and writing the thesis/final assignment.

The learning process is conducted using student-centered learning (SCL) methods, which are adapted according to the policies of each study program, including problem-based learning, role play, simulation, mini-lectures, e-learning, and group discussions.

3.2 Student Registration

Every student admitted and registered at UIN Syarif Hidayatullah Jakarta is required to be familiar with the academic program they are enrolled in. Therefore, every student must carry out the following:

3.3 Re-registration and Study Plan Submission

At the beginning of each semester, students are required to complete re-registration and submit their study plans through the Academic Information System (AIS). Failure to do so will result in the student's status being changed to "Non-Active," and their rights as a student for that semester will not apply. To be able to attend classes in the following semester, the student must re-register by fully settling their financial obligations for the current semester and any outstanding debts from previous semesters. The semester in which a student's status is "Non-Active" will still be counted as part of their overall study duration.

e-RS (Electronic Study Plan) submission is subject to the following conditions:

- a. Students in their first semester (semester I) are only allowed to take courses designated for that semester. Students in subsequent semesters can take courses as stipulated.
- b. Students must pay attention to compulsory and elective course groups.
- c. Sequential or prerequisite courses must be taken in the prescribed order.
- d. The number of courses and their corresponding credit load must adhere to the applicable regulations, taking into consideration the semester's grade point average and the maximum allowable credit load.

- e. Students are allowed to take cross-disciplinary courses within the university as long as the course content, nomenclature, course codes, and alignment with the discipline packages of the student's program of study are met.
- f. Throughout their academic journey, students must re-register and submit a Study Plan each semester (including thesis/dissertation and selecting an academic advisor for each semester)

3.4 Change of Study Plan

According to the academic calendar, changes, substitutions, and course cancellations can be made during the e-RS input schedule. Suppose the Academic Advisor has validated the e-RS, but the student wishes to change or cancel courses. In that case, the process can be carried out after approval by the Academic Advisor as long as the e-RS input schedule has not been closed.

3.5 Skripsi (Bachelor Thesis)

Seminar Registration Procedure

1. Seminar registration is conducted online through Google Forms using the following links:
 - Proposal Seminar Registration: <https://s.id/DaftarSemproFarmasi>
 - Thesis Seminar Registration: <https://s.id/DaftarSemhasFarmasi>
 - Comprehensive Seminar Registration: <https://s.id/DaftarKomprefarmasi>
2. The department (Prodi) will arrange the schedule and select examiners.
3. Students are required to submit their proposal or thesis to their advisors and examiners at least two days before the seminar.

Requirements for Students Eligible to Conduct Proposal Seminars:

1. Fill out the proposal seminar registration Google Form.
2. Enroll in the proposal seminar course in your Study Plan (KRS). (Proven by attaching the KRS, signed by the Academic Advisor.)
3. Have completed a minimum of 135 credit hours. (Proven by attaching an official transcript, initialed by the Academic Advisor.)
4. Obtain approval from Advisor I and Advisor II. (Proven by attaching a statement of approval from the advisors.)

Requirements for Students Eligible to Conduct Bachelor Thesis Seminars:

1. Create a letter of request to the Program Coordinator (using the provided form) and fill out the thesis seminar registration Google Form.
2. Obtain approval from your advisors to conduct the Final Examination (the approval sheet in the thesis should be signed by both Advisor 1 and Advisor 2).

3. Have passed all courses with a minimum grade of C. (Proven by an official transcript, with a total of 151 credit hours, initialed by the Academic Advisor.)
4. Enroll in the Thesis course (4 credit hours) and Comprehensive Seminar (1 credit hour) in your Study Plan (KRS). (Proven by attaching the KRS.)
5. Have completed all administrative requirements at the faculty (such as tuition payment, etc.), proven by official letters or receipts.
6. Submit six thesis bundles approved by the advisors and the program coordinator.
7. Engage in the thesis advisory process with your advisors (proven by a thesis advisory book with a minimum of 10 meetings with both advisors during the thesis process).
8. Have a minimum TOEFL score of 450 (proven by the original certificate and a photocopy, legalized by an authorized official).
9. Have a minimum TOAFL score of 375 (proven by the original certificate and a photocopy, legalized by an authorized official).

Requirements for Participating in the Comprehensive Examination:

- a. Create a letter of request to the Program Coordinator (using the provided form) and complete the comprehensive examination registration Google Form.
- b. Obtain approval from your advisors to conduct the final examination (proven by an official/original statement from the advisors).
- c. Students have passed the thesis seminar.

Procedure for Submitting Grades for Student Proposal Seminars, Bachelor Thesis, and Comprehensive Examinations at the Pharmacy Program, UIN Syarif Hidayatullah Jakarta:

1. Students participating in the seminar should download one of the official report forms corresponding to the seminar's type, along with the assignment letter. These report forms and assignment letters can be downloaded from the following links:
 - a. Proposal Seminar
 - b. Thesis Seminar
 - c. Comprehensive Seminar
 - d. Assignment Letter
2. Students participating in the seminar should also download the assessment matrix corresponding to their seminar type and provide it to each examiner and advisor:
 - a. Assessment Matrix for Proposal Seminar
 - b. Assessment Matrix for Thesis Seminar
 - c. Assessment Matrix for Comprehensive Seminar
3. Students should submit the completed report form to their advisors and request them to return the report form and assessment matrix to the program coordinator, signed by each examiner and advisor.

Procedures for Conducting Proposal Seminars, Thesis Seminars, and Comprehensive Seminars:

1. The seminar duration is set for 60 minutes (1 hour).
2. The time allocation for conducting proposal seminars and thesis seminars is as follows:

Activity	Time Allocation
Opening by the session chair/advisors	2 minutes
Presentation of the student's proposal or thesis	15 minutes
Question and answer session with Examiner 1 and Examiner 2.	30 minutes (@15 minutes)
Feedback and confirmation by Advisor 1 and Advisor 2.	10 minutes (@5 minutes)
Evaluation and closing by session chairs/advisors.	3 minutes

The time allocation for the comprehensive seminar is as follows:

Activity	Time Allocation
Opening by the session chair.	3 minutes
Thesis presentation by the student.	7 minutes
Question and answer session with Examiner 1, Examiner 2, and Examiner 3 (15 minutes each).	45 minutes (@15 minutes)
Evaluation and closing by the session chair.	5 minutes

3.6 Graduation Honors

The graduation honors for students are determined by their GPA (Grade Point Average) and length of study as follows:

No	GPA	Honors
1	3.51 – 4.00	Pujian/Cum Laude
	Note: "With Honors/Cum Laude" is awarded to students who graduate in no more than ten semesters. Students who take more than ten semesters will receive the "Very Satisfactory" designation.	
2	3.01 – 3.50	Very Satisfactory
3	2.76 – 3.00	Satisfactory
4	2.00 – 2.75	Good

3.7 Assessment of Learning Outcomes

The course evaluations were conducted during the mid-semester and at the end of the semester. The mid-semester assessment is performed after 50% (fifty percent) of scheduled class meetings have been completed. The final-semester assessment was conducted when all course materials were covered according to the established schedule. Students were not eligible to participate in the if they attended final-semester assessment less than 75% of the scheduled class meetings. The results of this evaluation are referred to as the semester-grade point average and cumulative grade point average.

For undergraduate students, evaluations were conducted at the end of the second and fourth semesters. Students who do not meet the minimum credit or GPA requirements face academic sanctions, including possible dismissal from the program. The study program assessed students' credit acquisition and GPA.

3.8 Assessment

Course assessment consists of the accumulation of several components, including formative assessments (attendance, presentations, quizzes, laboratory work, and/or other assignments), mid-semester exams, and final semester exams. Course exam results and academic papers were assessed by assigning numerical grades, which were then converted into letter grades with associated weights. The conversion and weight values for the entire study program were as follows:

Numerical Grade	Letter Grade	Weight Value	Description
80-100	A	4.00	Pass
70-79	B	3.00	Pass
60-69	C	2.00	Pass
50-59	D	1.00	Fail
0-49	E	0.00	Fail

3.9 Grade Improvement

There are two mechanisms for grade improvement.

1. If the grade has not yet entered the AIS system, students who have not passed the assessment standards can take a remedial exam once with the approval of the course instructor.
2. Suppose that grades have already been issued in the AIS system. In this case, grade improvement can only be accomplished by retaking the course in the

following semester through the e-KRS (Electronic Course Registration System) and attending the course again.

Grade improvement can only be achieved under the following conditions.

- a. Grade improvement is not allowed for past semesters due to reporting to the Higher Education Database (PDDIKTI).
- b. According to the established schedule, students must enroll in the course they intend to improve in the e-RS in AIS.
- c. Students can pursue grade improvement with the condition that the highest grade achieved is the one that counts.
- d. Students must attend the full regular course (for 14 effective weeks) or the subsequent semester. In the event of a curriculum change, if a student wishes to improve a grade but the old curriculum course is no longer offered in the new curriculum, the program coordinator will determine a suitable replacement.

3.10 Grade Cleansing

Grade cleansing selects a course not to be displayed on the academic transcript. This can occur if grade improvement for a course in the old curriculum is no longer offered in the new curriculum. Grade improvement was achieved by taking a replacement course in the new curriculum. Consequently, two courses appear in the transcript, whereas only one should be displayed. Therefore, one of the courses must undergo cleansing and not be displayed in the transcript.

3.11 Academic Leave

Students who have actively studied for a minimum of 2 (two) semesters can take an academic leave for 1 (one) semester. Students were not allowed to extend their leave periods (consecutive leaves for two semesters). Academic leave can be taken for a maximum of two semesters during the study period and is still considered part of the study period. During leave, students are only required to pay administrative fees, as stipulated.

To apply for academic leave, students must submit their request to the Dean of the faculty no later than 7 (seven) days before the end of the registration period for the next semester.

The application should include the following requirements.

- a. Proof of payment of tuition fees for the previous semester.
- b. Transcripts of the previous semester
- c. Approval letters from the Academic Advisor and/or Department/Program Coordinator.

The Dean submits the student's leave request to the University Rector through the Head of the Academic Administration and Student Affairs Office (Biro AAKK), along with the student's application and required documents. If the requirements are met, the Head of AAKK issues an Academic Leave Certificate for the respective student and sends copies to the Dean of the faculty the Administrative Head of the faculty, and the University Finance Department. Students can obtain a leave certificate after paying an academic leave administrative fee.

3.12 Withdrawal

Students who wish to withdraw from UIN Syarif Hidayatullah Jakarta can follow the withdrawal procedure as follows:

- a. The concerned student submits a written request to the Dean of the faculty / Director of the Graduate School with approval from the Program Study.
- b. The faculty / Graduate School submits this request to the University Rector through the Head of the Academic Administration and Student Affairs Office (Biro AAKK), along with Proof of tuition fee clearance from the Finance Department and library clearance.
- c. The University Rector, through the Head of the Academic Administration and Student Affairs Office (Biro AAKK), issues a Withdrawal Certificate with an attachment of the Study Results Recapitulation.

3.13 Academic Advisor

Establishing a credit system as an educational system allows students to plan and decide on the courses they will take each semester. In course planning and selection, students are advised to consult with their academic advisors. However, the final decision is the responsibility of the students themselves. A student's success in their studies is not solely based on their academic abilities but can be influenced by various factors. Academic advisors serve as guides or counselors to students in addressing academic and non-academic issues.

The responsibilities of academic advisors include:

1. Assisting students in recognizing and identifying their interests, talents, and academic abilities.
2. Guiding students in selecting courses each semester to ensure they can effectively and efficiently utilize their study time.
3. Providing motivation for students to find solutions and the best possible approach when facing problems.
4. Assisting students in preparing and developing their study plans and validating study plans (e-RS) entered into the AIS based on their interests, talents, and academic abilities.

5. Verifying and validating the SKPI (Certificate of Accompanying Diploma) for students.
6. Providing consultation to students in the preparation of research proposals for their final projects/theses.

3.14 Yudisium, Graduation of Students, and Commencement

1. Yudisium is the determination of whether a student has passed or not, serving as the final assessment process for all courses undertaken, including the defense of the final project/thesis/dissertation along with any revisions.
2. The determination of graduation is conducted during an academic meeting by the Dean of the faculty or the Graduate School and is announced to the students.
3. Yudisium can be conducted one month after the defense of the final project/thesis/dissertation and several times before the commencement ceremony.
4. Students who have completed their final project/thesis/dissertation defense and have received approval for any revisions must register for yudisium to request their graduation.
5. The requirements for registering for yudisium are as follows:
 - a. Completion of all required courses and meeting the minimum credit and GPA requirements according to the educational program.
 - b. Successful Completion of the munaqosah/examination of the final project/thesis/dissertation, as documented in the official report.
 - c. Possession of a report on the submission and approval of the final project/thesis/dissertation, signed by the Dean, Chair of the Program Study, examiners, and advisors.
 - d. Clearance of tuition fees, confirmed by a certificate from the university's finance department.
 - e. Clearance of library obligations, confirmed by a library clearance certificate from the university and faculty. Yudisium is signed by the relevant faculty dean.
6. The date of the Yudisium Certificate represents the student's graduation date.
7. The faculty dean reports the graduation of students in writing to the University Rector or the Vice Rector for Academic Affairs no later than 10 days after the designated date

IV. ACADEMIC SANCTIONS

4.1 Administrative Sanctions

Administrative sanctions are imposed on students who violate academic administrative regulations:

- a. Students who register outside the specified registration period are subject to fines as per the applicable regulations.
- b. Students who fail to pay tuition fees by the established deadline will have their status changed to Non-Active. To reinstate their Active status in the following semester, students must settle the tuition fees for the next semester and clear all outstanding fees from previous semesters, along with any associated fines.

4.2 Academic Sanctions

- a. Students who fail to re-register will have their status changed to Non-Active.
- b. Students who fail to submit their study plans (e-RS) within the designated timeframe are not eligible to attend classes, with all consequences that may arise.
- c. Students whose attendance in a course is less than 75% of the instructor's attendance in one semester are not eligible to take the final exam for that course and will be declared as failed in that course.
- d. Students who do not complete structured assignments and/or independent tasks may face penalties such as the delay or cancellation of the grades awarded by the respective instructor.
- e. Undergraduate students (S1) who, at the end of the second semester, earn less than 24 credits or have a GPA below 2.00, will face academic sanctions in the form of dismissal.
- f. Undergraduate students (S1) who, at the end of the fourth semester, earn less than 48 credits or have a GPA below 2.00, will face academic sanctions in the form of dismissal.
- g. Students who cannot complete the revision of their final project/thesis/dissertation within three months after the final project/thesis/dissertation defense will have their examination results nullified and will be required to retake the examination.
- h. The imposition of academic sanctions is proposed by the Faculty/School of Graduate Studies Committee to the Dean/Director. Subsequently, the Dean/Director forwards the proposal to the University Rector or the Head of the Academic Administration and Student Affairs Bureau (Biro AAKK) for the issuance of an Academic Sanction Letter from UIN Syarif Hidayatullah Jakarta.

4.3 Non-Academic

Sanctions Students who violate non-academic, legal, and moral regulations may face non-academic sanctions, including:

- a. Verbal warnings;
- b. Strong warnings;
- c. Suspension for a specified period;
- d. Expulsion from the university.

The types of penalties listed above are determined by the Rector's decision based on recommendations from the faculty/dean of the Graduate School, taking into account the advice of a special committee comprising various stakeholders at both the faculty/Graduate School and university levels. Termination of a student's studies for non-academic reasons can only be done with the Rector's decision.

V. FACILITIES

The facilities available in the Pharmacy Program at UIN Syarif Hidayatullah Jakarta are as follows:

1. **Library:** The Faculty of Health Sciences has access to a library with a collection of physical and electronic books and scientific journals. Students can also access digital library resources, making research and study more convenient.
2. **Internet Access:** High-speed internet access is available to all Faculty of Health Sciences academic members.
3. **Classrooms:** Faculty have classrooms that are equipped with modern facilities, including air conditioning, LCD projectors, whiteboards, and microphones.
4. **Laboratories:** The program provides well-equipped laboratories for hands-on experiments, research, and practical training.
5. **Toilet Facilities:** Restrooms are conveniently available for students and faculty.
6. **Prayer Room (Musholla):** the room that is a dedicated prayer room for religious and spiritual needs.
7. **Cafeteria:** There is a cafeteria where students can enjoy meals and snacks.
8. **Computer Facilities:** Computer labs with internet access for academic and research purposes.
9. **Lecture Halls:** Spacious venues for lectures, seminars, and conferences.
10. **Student Activities:** Facilities for student meetings, discussions, and other extracurricular activities.
11. **Wi-Fi Access:** Campus-wide Wi-Fi connectivity for students to access the internet.
12. **Recreation Facilities:** Areas for relaxation, socializing, and leisure activities.
13. **Parking:** Parking areas for students who commute by car.

Additionally, the university offers various other facilities, including the main library, central mosque (masjid), health facilities, more dining options (kantin), and a

central library that students can access. Students can also access facilities in other locations, such as hospitals for their Fieldwork Practice.

These facilities collectively contribute to creating a conducive learning environment and supporting students' academic and non-academic needs within the Pharmacy Program at UIN Syarif Hidayatullah Jakarta.

VI. RESEARCH, COMMUNITY SERVICE, AND COLLABORATION

6.1 Research

Various research activities conducted by faculty members of the Pharmacy Study Program at the Faculty of Health Sciences, UIN Syarif Hidayatullah Jakarta, are funded by various sources. At the university level, there is a budget allocation from BOPTN and BLU UIN Syarif Hidayatullah Jakarta. In addition, some faculty members receive research funding through collaborations with domestic and international educational institutions and research institutions such as BRIN (Research and Innovation Agency). The amount of funding varies depending on the researchers' qualifications, the research's scale, and the final products produced. Research is generally conducted in groups that involve faculty members, students, and educational staff, resulting in scientific publications, patents, and commercial products.

The Pharmacy Study Program also has a periodic scientific journal called the [Pharmaceutical and Biomedical Science Journal \(PBSJ\)](#), which is nationally accredited at SINTA level 4. This journal is a platform for publishing research conducted by students, faculty members, and educational staff.

6.2 Community Service

Community service activities for Academic members of the Pharmacy Study Program at UIN Syarif Hidayatullah Jakarta are funded by various sources, including the budget allocation from BOPTN and BLU UIN Syarif Hidayatullah Jakarta, grants from regional and central governments, as well as contributions from students. All community service activities are monitored, evaluated, and periodically reported by the study program, faculty, university, and funding agencies to ensure these activities' quality, relevance, and productivity.

6.3 Collaboration

Several collaborations have been conducted by the Faculty of Health Sciences in order to carry out the higher education tri dharma, which consists of Education, Research, and Community Service. Several collaborations that have been utilized in the activities of the Pharmacy Study Program are shown in the table below.

No.	Institution	Activities		
		Education	Reserach	Community Service
1	Josai University, Japan	√	√	√
2	St Luke's College of Nursing	√	√	√
3	Griffith University, Australia	√	√	√
4	Tohoku University, Japan	√	√	√
5	Burapha University, Thailand	√	√	√
6	Pasar Minggu Regional General Hospital	√	√	√
7	Tangerang Selatan Regional General Hospital	√	√	√
8	Tangerang Regional General Hospital	√	√	√
9	Banten Regional General Hospital	√	√	√
10	Gatot Subroto Presidential Hospital	√	√	
11	Dr. Gunawan Partowidigdo Pulmonary Hospital	√	√	√
12	Marzoeki Mahdi Psychiatric Hospital.	√	√	
13	Palangkaraya City Goverment	√	√	
14	Department Health of Tangerang Selatan City	√	√	√
16	Fatmawati Educational General Hospital	√	√	√
18	Cengkareng Regional General Hospital	√	√	√
19	RS Pelabuhan Jakarta Hospital	√	√	√
20	BRIN	√	√	√

a. Collaboration in the Field of Education.

The Faculty of Health Sciences at UIN Syarif Hidayatullah Jakarta has expanded its educational reach internationally through synergistic international collaborations, including international joint research, conferences, and publications. The Faculty of Health Sciences at UIN Syarif Hidayatullah Jakarta has organized two International Health Sciences Conferences in collaboration with international institutions such as Griffith University Australia, Tohoku

University Japan, St. Luke's University, Josai University Japan, Burapha University Thailand, and IIUM Malaysia

b. Research Collaboration Research

Collaborations have been established with various International and National Universities and domestic agencies, including BPPT (Agency for the Assessment and Application of Technology), BRIN (National Research and Innovation Agency), and various pharmaceutical service facilities such as pharmacies, hospitals, and community health centers, primarily for student and faculty research.

c. Community Service Collaboration

In community service, the Pharmacy Study Program at UIN Syarif Hidayatullah Jakarta provides services such as free health examinations, free drug counseling, the cultivation of medicinal plants (TOGA), and many other communities service activities. Additionally, community service activities are conducted in collaboration with the Indonesian Ministry of Health.

VII. STUDENT AND ALUMNI

7.1 Students

The main goal of student development in the Pharmacy Bachelor's Program at UIN Syarif Hidayatullah Jakarta is to support and complement curricular activities with extracurricular activities. This ensures that graduates have added value in the form of organizational experience, self-actualization, personal development, community awareness, and a strong sense of togetherness.

7.2 Alumni

Alumni of the Pharmacy Bachelor's Program at UIN Syarif Hidayatullah Jakarta come together through the Ikatan Alumni Farmasi UIN Syarif Hidayatullah Jakarta (IKAFAR UIN). One of the objectives of forming this Alumni Association is to provide input to the program, particularly regarding the curriculum, to make it more applicable and aligned with current industry needs.

Alumni have established a wide and strong network through the organizations where they work, which provides information such as job vacancies and seminars. Additionally, social networking platforms like Instagram and WhatsApp have strengthened friendships, communication, and information sharing among alumni and their alma mater. This network is often used as a means to disseminate job opportunities to recent graduates. Alumni also actively contribute to the learning process by participating in curriculum evaluation, ensuring that the content provided meets the needs of stakeholders.